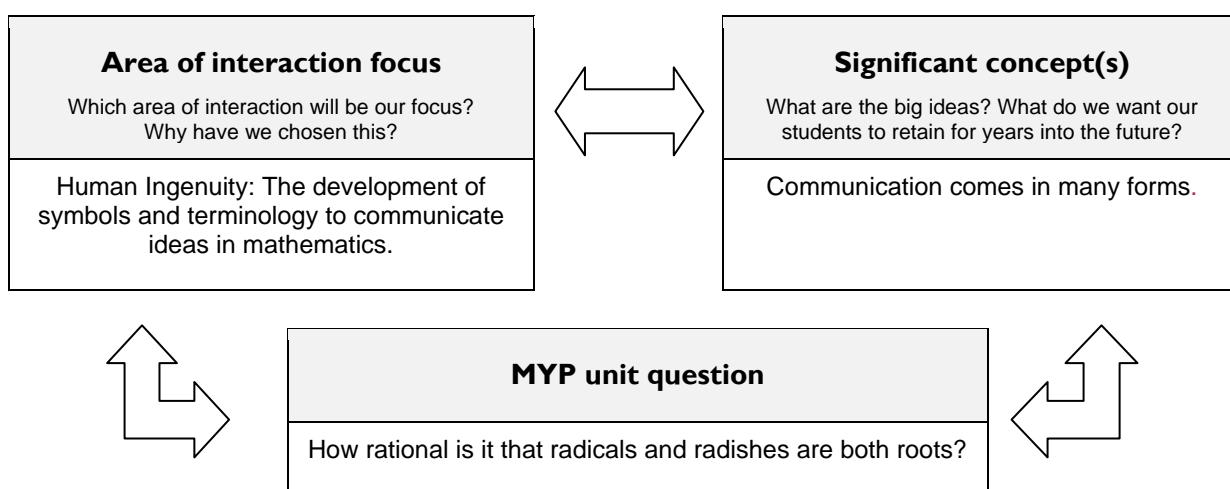


# MYP unit planner

<b>Unit title</b>	<b>Say what!</b>
Teacher(s)	
Subject and grade level	MYP 3
Time frame and duration	6 weeks

## Stage I: Integrate significant concept, area of interaction and unit question



<b>Assessment</b> What task(s) will allow students the opportunity to respond to the unit question? What will constitute acceptable evidence of understanding? How will students show what they have understood?
A broad-based classroom test/examination composed of a range of questions and problems, in familiar and unfamiliar situations, covering at least three of the branches of the framework for mathematics, and which allows students to reach all levels of achievement.  Students will simplify and solve expressions and equations involving rational expressions and radicals. Students will create graphic organizers to help them learn the symbols and terminology. Students will write explanations for their solutions.
Which specific MYP objectives will be addressed during this unit? Which MYP assessment criteria will be used?
A: Knowledge and understanding: know and demonstrate understanding of the concepts from the five branches of mathematics. Select and apply general rules correctly to solve problems, including those in real-life contexts.  C: Communication in mathematics: use appropriate mathematical language (notation, symbols, terminology) in both oral and written explanations.

## Stage 2: Backward planning: from the assessment to the learning activities through inquiry

<p><b>Content</b></p> <p>What knowledge and/or skills (from the course overview) are going to be used to enable the student to respond to the unit question?</p> <p>What (if any) state, provincial, district, or local standards/skills are to be addressed? How can they be unpacked to develop the significant concept(s) for stage 1?</p>	
<p>Students will develop an understanding and appreciation of mathematical terminology and the use of symbols as a form of communication.</p> <p><b>Mathematical Processes</b></p> <p>Communicate logical arguments clearly to show why a result makes sense.</p> <p>Develop effective oral and written presentations that include:</p> <ul style="list-style-type: none"> <li>• appropriate use of technology</li> <li>• the conventions of mathematical discourse (e.g., symbols, definitions, labeled drawings)</li> <li>• mathematical language</li> <li>• clear organization of ideas and procedures</li> <li>• understanding of purpose and audience.</li> </ul> <p>Explain mathematical concepts, procedures, and ideas to others who may not be familiar with them.</p> <p>Read and understand mathematical texts and other instructional materials and recognize mathematical ideas as they appear in other contexts.</p> <p>Develop effective oral and written presentations employing correct mathematical terminology, notation, symbols, and conventions for mathematical arguments and display of data.</p> <p>Organize work and present mathematical procedures and results clearly, systematically, succinctly, and correctly.</p> <p>Read and understand:</p> <ul style="list-style-type: none"> <li>• mathematical texts and other instructional materials</li> <li>• writing about mathematics (e.g., articles in journals) mathematical ideas as they are used in other contexts.</li> </ul>	
<p><b>Approaches to learning</b></p> <p>How will this unit contribute to the overall development of subject-specific and general approaches to learning skills?</p>	
<p>Solve and simplify problems involving rational expressions and radicals.</p> <p>Students will create graphical organizers and present them to the class in order to develop an understanding of the symbols and terminology.</p>	
<p><b>Learning experiences</b></p> <p>How will students know what is expected of them? Will they see examples, rubrics, templates?</p> <p>How will students acquire the knowledge and practise the skills required? How will they practise applying these?</p> <p>Do the students have enough prior knowledge? How will we know?</p>	<p><b>Teaching strategies</b></p> <p>How will we use formative assessment to give students feedback during the unit?</p> <p>What different teaching methodologies will we employ?</p> <p>How are we differentiating teaching and learning for all? How have we made provision for those learning in a language other than their mother tongue? How have we considered those with special educational needs?</p>
<p>Students will be presented with learning objectives, stated in “kid-friendly” terms that will guide them throughout the unit.</p> <p>Students will acquire the knowledge and skills that they will need in order to answer the unit question by participating in lessons, small group activities and by creating their graphical organizers.</p>	<p>Students will create graphic organizers throughout the unit. These graphic organizers will help the students to develop and demonstrate their understanding of the mathematical terminology and symbols and will also allow the teacher to provide on-going feedback to the students.</p> <p>The students will have the opportunity to demonstrate their understanding of radicals and rational expressions</p>

Students are expected to have an understanding of how to add, subtract, multiply and divide fractions prior to starting this unit. A brief review will be conducted at the start of the unit.	as they work through homework assignments, group activities and constructive response questions.  Students who are learning in a language other than their mother tongue will have access to multi-language dictionaries and electronic translation tools to assist them.
<b>Resources</b>  What resources are available to us?  How will our classroom environment, local environment and/or the community be used to facilitate students' experiences during the unit?	
<ul style="list-style-type: none"> <li>Lial, Hornsby, McGinnis, Salzman, Hestwood, <u>Developmental Mathematics: Basic Mathematics and Algebra</u></li> <li>Graphical organizers</li> </ul>	

## Ongoing reflections and evaluation

**In keeping an ongoing record, consider the following questions. There are further stimulus questions at the end of the “Planning for teaching and learning” section of *MYP: From principles into practice*.**

### Students and teachers

What did we find compelling? Were our disciplinary knowledge/skills challenged in any way?

What inquiries arose during the learning? What, if any, extension activities arose?

How did we reflect—both on the unit and on our own learning?

Which attributes of the learner profile were encouraged through this unit? What opportunities were there for student-initiated action?

### Possible connections

How successful was the collaboration with other teachers within my subject group and from other subject groups?

What interdisciplinary understandings were or could be forged through collaboration with other subjects?

### Assessment

Were students able to demonstrate their learning?

How did the assessment tasks allow students to demonstrate the learning objectives identified for this unit? How did I make sure students were invited to achieve at all levels of the criteria descriptors?

Are we prepared for the next stage?

### Data collection

How did we decide on the data to collect? Was it useful?